

REMARKS

In the Office Action the Examiner noted that claims 1-9 are pending in the application, and the Examiner rejected all claims. By this Amendment, claims 1 and 8-9 have been amended. No new matter has been presented. Thus, claims 1-9 remain pending in the application. The Examiner's rejections are traversed below, and reconsideration of all rejected claims is respectfully requested.

Claim Rejections Under 35 USC §101

In items 7-9 on pages 2-4 of the Office Action the Examiner rejected claims 1-9 under 35 U.S.C. §101, alleging that claims 1 and 8-9 cover a 35 U.S.C. §101 judicial exception. The Examiner alleged that these claims are directed to "the abstract idea" of "judging....that said server is under a high load", and thus have no "useful, concrete and tangible result".

The Applicants respectfully submit that the Examiner has not established a prima facie case for non-statutory subject matter in these claims. To wit, the Examiner has alleged that "judging...that said server is under a high load" is an abstract idea. However, the Applicants respectfully submit that there is nothing abstract about the recited feature of judging that a server is under a high load if the detected change of the communication data size of the connection decreases below a predetermined proportion of the recorded maximum size value. In other words, the maximum size value of the communication data size of the connection is recorded, and when a change in that communication data size is determined to be below a predetermined proportion of the recorded maximum, the server is judged to be under a high load. The Applicants respectfully submit that these are concrete and real-world parameters used in the method, and that there are no abstract components to be found. This feature is not a principle or a fundamental truth to constitute an abstract idea, rather it is a new and useful way of judging a server to be under a high load according to actual detected values.

While the Examiner alleged that no real-world final result occurs from judging that the server is under a high load, the Applicants respectfully submit that the Examiner has not properly applied the 35 U.S.C. §101 judicial exception, because the judging that the server is under a high load according to the detected values is the new and useful result.

Nevertheless, independent claims 1 and 8-9 have been amended to more clearly recite that, for example in claim 1, the load of the server is managed according to the judgment of the high load. Therefore, the Applicants respectfully submit that claims 1-9 properly meet the

requirements of 35 U.S.C. §101, and further respectfully request the withdrawal of the Examiner's §101 rejections of claims 1-9.

Claim Rejections Under 35 USC §102

In items 12-16 on pages 4-6 of the Office Action the Examiner rejected claims 1, 2, 8, and 9 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 5,987,493, issued to Rangan et al. (hereinafter referred to as "Rangan"). The Applicants respectfully traverse the Examiner's rejections of these claims.

Regarding claim 1, the Applicants respectfully submit that Rangan does not disclose or suggest several of the recited features of that claim, much less all of the recited features.

For example, claim 1 recites monitoring a communication "between a client and a server, the communication being from the client to the server, and the communication including at least one connection having a communication data size." The Examiner alleged that Rangan discloses this feature in Lines 12-32 of Column 2 and Lines 41-52 of Column 3.

However, it is apparent that Rangan is not monitoring a communication from the client to the server. Rangan discloses a method of comparing, at the client, first and second counter values from first and second messages received at the client from the server to determine transmission rates. The number of messages sent from the server between the first and second messages is determined from the counter values, and that number is compared to the time between reception of the first and second messages to measure the transmission rate (Column 3, Lines 24-52). The Examiner is apparently characterizing the start connection 111 and client IP datagrams 112 as the communication from the client to the server, but it is apparent that these are not monitored by the client, and are certainly not used in the measuring process. "Therefore, what is described in connection with FIG. 2 is IP datagrams as received by the client from the server and datagrams as sent from the client to the server are not described" (Column 3, Lines 20-23).

Further, claim 1 recites "detecting a change in the communication data size of the connection of the client and server." While the Examiner has characterized the measuring of the transmission rates of the messages sent from the server to the client in Rangan as this feature of claim 1, the Applicants respectfully submit that the claim clearly recites, due to at least antecedent basis, that the connection is included in the communication from the client to the server. As previously discussed, only the messages from the server to the client are used for

the measurements in Rangan, and therefore Rangan does not disclose or suggest detecting a change in the communication data size of a connection in a communication from client to server.

Also, claim 1 recites “recording a maximum size value of the communication data size.” Again, according to at least antecedent basis, the communication data size refers to the connection of the communication from a client to a server, which is not disclosed or suggested in Rangan. The Examiner alleged that this feature is disclosed in the “historical data” described in Rangan from Line 53 of Column 3 to Line 5 of Column 4. However, there is no mention or even contemplation in Rangan of the “historical data” including a maximum size value of the communication data size. Rather, Rangan merely discloses storing historical transmission rates with the current determined rate. No recording of a maximum size value of the communication data size of the connection is contemplated.

Further, even assuming, arguendo, that the historical transmission rates did include a maximum communication data size for the historical transmissions, this would be in direct contrast to recording a maximum size of the communication being monitored for load detection. Claim 1 clearly recites that the communication data size, of which the maximum size value is being recorded, is of the connection of the communication from the client to the server. This would be similar to what Rangan refers to as the “current” transmission rate (“The current transmission rate may be compared with historical transmission rates and information may then be displayed indicating whether the current transmission rate exceeds, equals or is less than historical transmission rates.” Column 3, Lines 59-63). Therefore, the maximum size value of the current communication from the client to the server is being recorded and used in the load detection method recited in claim 1, as opposed to any historical transmission rates.

In other words, claim 1 recites “judging, if the detected change of the communication data size of the connection decreases below a predetermined proportion of the recorded maximum size value, that said server is under a high load.” Therefore, it is apparent that the same connection is used for the recording of the maximum size value of the communication data size, for the detection of the change in the communication data size, and the judging that the server is under a high load if the detected change decreases below a predetermined proportion of the recorded maximum data size. Even if Rangan did disclose the monitoring of messages from the client to the server, which it does not, it does not disclose or even contemplate recording any maximum size value of the communication data size of the connection, detecting a change in the communication data size, and judging a high load if the detected change decreases below a predetermined portion of the recorded maximum size value. Rather, it is

apparent from the disclosure that Rangan merely discloses determining a rate of transmission according the number of packets sent between received packets and the time in between the receipt of the received packets. No high load whatsoever is judged with this information, and certainly is not judged according to a detected change of the communication data size occurring in that connection. The rate of transmission determined in Rangan can then be compared to historical rates of transmission to determine good times to communicate with the server, but no judging of a high load is performed in the monitoring of what Rangan calls the "current" transmission rate.

In other words, Rangan does not disclose or even contemplate monitoring one connection for changes in the communication data size of the one connection to detect load in a server. Rather, Rangan simply discloses measuring time between two consecutive messages to determine a transmission rate.

Nevertheless, even though the Applicants respectfully submit that the features discussed at length above are not disclosed, suggested, nor even contemplated in Rangan, claim 1 has been amended to more clearly recite that the communication is monitored at a point between the client and the server. It is respectfully submitted that Rangan quite apparently does not perform the communication monitoring at a point between the client and the server.

Therefore, Rangan does not disclose or suggest at least the features of claim 1 discussed above. Accordingly, Rangan does not disclose every element of the Applicants' claim 1. In order for a reference to anticipate a claim, the reference must teach each and every element of the claim (MPEP §2131). Therefore, since Rangan does not disclose the features recited in independent claim 1, as stated above, it is respectfully submitted that claim 1 patentably distinguishes over Rangan, and withdrawal of the §102(e) rejection is earnestly and respectfully solicited.

Claim 2 depends from claim 1 and includes all of the features of that claim plus additional features which are not disclosed by Rangan. Therefore, it is respectfully submitted that claim 2 also patentably distinguishes over Rangan.

Claim 8 recites judging, if the receivable data size per connection becomes small with respect to the maximum value, that said server is under a high load. While the Examiner has cited the same sections of Rangan for the rejection of claim 8 that were recited for the rejection of claim 1, the Applicants respectfully submit that Rangan has no contemplation of any analysis whatsoever of the receivable data size per connection transmitted from the server to the client, and certainly does not disclose judging a server to be under a high load if the receivable data

size per connection becomes small with respect to a stored maximum value of same. Rather, only a time between received packets is used to determine a rate of transmission. Further, claim 8 has also been amended to recite other features similar to those recited in claim 1, and which are not disclosed or suggested in Rangan. Therefore, the Applicants respectfully submit that claim 8 also patentably distinguishes over Rangan.

Claim 9, as amended, recites similar features to those discussed above in regard to claim 1, and which are not disclosed, suggested, or contemplated in Rangan. Therefore, it is respectfully submitted that claim 9 also patentably distinguishes over Rangan.

Claim Rejections Under 35 USC §103

In items 18-20 on pages 6-8 of the Office Action the Examiner rejected claims 3 and 5 under 35 U.S.C. §103(a) as being unpatentable over Rangan in view of U.S. Patent No. 5,400,329, issued to Tokura et al. (hereinafter referred to as "Tokura"). The Applicants respectfully traverse the Examiner's rejections of these claims.

As previously discussed in this Amendment, claim 1 patentably distinguishes over Rangan. Further, as Tokura apparently merely discloses ignoring packets of small size for congestion calculations, Tokura does not cure the deficiencies of Rangan regarding claim 1 of the present application. Therefore, as claims 3 and 5 depend from claim 1 and include all of the features of that claim plus additional features which are not disclosed or suggested in the cited references, it is respectfully submitted that claims 3 and 5 also patentably distinguish over the cited references.

Further, even assuming arguendo that Rangan and Tokur did disclose the features discussed by the Examiner, the Applicants respectfully submit that there is no motivation to combine the cited references. The Examiner stated that the combination of the references would be obvious in order to exclude SYN and FIN packets to simplify the calculations while retaining a high degree of accuracy. However, this is in direct contrast with the time between packet measurement performed in Rangan, which is only interested in the time and number of the packets, and is not affected by the size of the packets whatsoever. Therefore, the cited references teach away from one another.

MPEP §2143.01 states that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so. Therefore, as there is no requisite motivation to

combine the references cited by the Examiner, the Applicants respectfully request the withdrawal of the Examiner's §103 rejections.

In items 21-22 on pages 8-9 of the Office Action the Examiner rejected claim 4 under 35 U.S.C. §103(a) as being unpatentable over Rangan in view of U.S. Patent No. 6,104,71, issued to Coile et al. (hereinafter referred to as "Coile"). The Applicants respectfully traverse the Examiner's rejection of this claim.

As previously discussed in this Amendment, claim 1 patentably distinguishes over Rangan. Further, as Coile apparently merely discloses retaining information of the communication from start to ending and other various features cited by the Examiner, Coile does not cure the deficiencies of Rangan regarding claim 1 of the present application. Therefore, as claim 4 depends from claim 1 and includes all of the features of that claim plus additional features which are not disclosed or suggested by the cited references, it is respectfully submitted that claim 4 also patentably distinguishes over the cited references.

Also, the Applicants respectfully submit that there is no motivation to combine Rangan and Coile. While the Examiner has merely repeated his description of Coile and stated that such a modification of Rangan would provide a reliable determination of the load on a given server. However, not only does Rangan not determine a load on a server, Rangan also does not disclose any such analysis of the communications from the client to the server. Therefore, the references teach away from one another.

In items 23-25 on pages 9-11 of the Office Action the Examiner rejected claims 6 and 7 under 35 U.S.C. §103(a) as being unpatentable over Rangan in view of U.S. Patent No. 6,219,712, issued to Mann et al. (hereinafter referred to as "Mann"). The Applicants respectfully traverse the Examiner's rejections of these claims.

As previously discussed in this Amendment, claim 1 patentably distinguishes over Rangan. Further, as Mann apparently merely discloses retaining a maximum value of a sequence number of messages from a client to a server to exclude a smaller sequence number, Mann does not cure the deficiencies of Rangan regarding claim 1 of the present application. Therefore, as claims 6-7 depend from claim 1 and include all of the features of that claim plus additional features which are not disclosed or suggested by the cited references, it is respectfully submitted that claims 6-7 also patentably distinguish over the cited references.

Also, the Applicants respectfully submit that there is no motivation to combine Rangan and Mann. The Examiner stated that one would be motivated to combine Mann and Rangan to account for delayed communications in order to keep congestion detection up to date. However,

it is apparent that there is no analysis whatsoever in Rangan of messages from the client to the server. Rather, Rangan merely measures the time between messages received at the client from the server. Therefore, it would be quite apparent to one skilled in the art that the cited references are not compatible, and in fact teach away from one another.

Summary

In accordance with the foregoing, claims 1, 8, and 9 have been have been amended. No new matter has been presented. Thus, claims 1-9 remain pending and under consideration.

There being no further outstanding objections or rejections, it is respectfully submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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